

# SEQUENCE LISTING

<110> Nunomura, Kiyotada  
 <120> POLYNUCLEOTIDE AMPLIFICATION METHOD  
 <130> G4104-02.UT  
 <160> 9  
 <170> FastSEQ for Windows Version 3.0  
 <210> 1  
 <211> 5'  
 <212> RNA  
 <213> Artificial Sequence  
 <310>  
 <313> Primer T7A(-)4190



aatttaattac gartcactat agggagaggtt tgtatgtctg ttgctattat gtcta

55

<310> 2  
 <311> 19  
 <312> DNA  
 <313> Artificial Sequence  
 <410>  
 <413> Primer (+)4108

<400> 1  
 acagcagttac aaatgggcag

19

<510> 3  
 <511> 3933  
 <512> RNA  
 <513> Human Immunodeficiency Virus  
 <610>  
 <611> source  
 <612> 3933 (3933)  
 <613> Sequence of transcripts produced from the BH10 plasmid.

<400> 3  
 gagcucucuc gaggcaggac ugggcuugcu gaagcgcgca cggcaagagg cgagggggcg 60  
 cgacugggga guacggccaaa aaauuugacu agcggagggc agaaggagag agauggggugc 120  
 gagagcgguca guuuaagcg ggggagaaau agaucgaugg gaaaaaaauu gguuaaggcc 180  
 aggggggaag aaaaaaiaia aauiaaaaaa uauagtaugg gcaagcaggg agcuagaacg 240  
 auicgcaguu aaucucggcc uguuagaaaac aucagaaggg uguagacaaa uacuggggaca 300  
 gcuacaacca ucccuucaga caggauacaga agaacuuaga ucauuauaua auacaguagc 360  
 aacccucuaa uguyugcaic aaaggauaga guaaaaagac aaccaaggag cuuuagacaa 420  
 gacagagga gaggcaaaaa aaaguaagaa aaaagcacag caagcagcag cugacacagg 480  
 aacagagga gaggucagcc aaaauiaccc uauagugcag aacauccagg ggcaaauggu 540  
 acaucaggcc auuacacca gaacuuuaaa ugcaugggga aaaguaugag aagagaaggc 600  
 uuacagccca gaagaaauac ccauguuuc agcauuacca gaaggagcca cccacacaaga 660  
 uuuaaacacc augguaaaca cagugggggg acaucaagca gccaugcaaa ugruaaaaga 720  
 gaccacuaa gaggaaagcg cagaauggga uagaguacai ccagugcaug caggggccuau 780  
 ugacccaggc cagugagag aaccaagggg aagugacaaa gcagggaac ia agaguacccu 840  
 ucaagaaia auaggagga ugacaaaaaa uccacciaic ccagtaggag aaauuaaiaa 900  
 aagaaggaa auuagggaa uuaaaaaaa aguaagaaag uaaagccia ccagcauicu 960  
 ggaauaaga auaggacaa agaaacuuu uagagacuaa guagacggg ucauaaaaaa 1020  
 uaagagagc gaggaaaguu caccaggagg aaaaaaugg agaacagaaa ccugguugyu 1080  
 ccaaaaugrg aaccagauu guaaagacua uuuuaaagca uggggaccag cggcuacacu 1140

agaagaaag	augacagcau	gucaggggagu	aggaggaccoc	ggccauaagg	caagaguuuu	1200
ggcugaagca	augagcciaag	uaacaaauac	agcuaccaria	augaugcaga	gaggccaauu	1260
uaggaacccaa	agaaagaagg	uuuaguguuu	caauuguggc	aaagaagggc	acacagccag	1320
aaauugcagg	gcoccuagja	aaaagggcug	uuggaaauu	ggaaagggaag	gacacccaaau	1380
gaaagauugj	acugagagac	agguuaauu	uuuagggaag	auucggccuu	ccuacagggg	1440
aaagccaggg	aauiuuouic	agagccagacc	agagcccaaca	gccccaccuu	uuuuucagag	1500
agacccagag	ccaacagccoc	ccacagaaaga	gagcuucagg	ucugggguag	agacaaacac	1560
uocccocucag	aagccaggajc	cgauagacaa	ggaaucuguu	ccuuiaacuu	ccucacagauc	1620
acucuuugggc	aaogacccoc	cgucacaaau	aagauagggg	ggcaacuuaa	ggaagcucua	1680
uuagauacag	gagccagauja	uacaguuaua	gaagaaauja	guuugccagg	aagauaggaaa	1740
ccaaaaaaga	uaggggggaui	uggaggguuu	aucaaaauaa	jacaguauga	ucagauacuc	1800
uuagaaauc	guggacauaa	agcuiaaggj	acaguauuag	uagjacuuac	accugucaac	1860
uuauugggaa	gaaauugju	gacucagau	ggguagcaui	aaauuuuoc	cauiagccoc	1920
auugagacag	uaccajuaaa	auuaaagcca	ggaauggaui	gcccciaagi	uaaaauaugg	1980
ccauugacag	aaagaaaaui	aaauagcaua	gtagaauiui	glaagaaui	ggaaaaggga	2040
gyyaaaaauu	caaaaauiagg	gcuuagaaui	ccaiacaaui	uuccagiuui	ugccuuaaa	2100
uaaaaaagaca	guacuaaaig	gaguaaaui	glagauuuu	gagaauiua	aaagagaac	2160
uuagauucui	gggaagjuua	auuaggaaua	ccacaucccg	caggguuaaa	aaagaaaaaa	2220
uuaguuacag	uacuggajui	gggugauuca	uauiuuuag	uuccuuuaga	ugaagacuc	2280
aggaaguuia	cugcauuuac	cauacccuagu	uaaaacaau	agacaccagg	gauuagauuu	2340
caguuacaaug	ugcuuuccaca	gggaugggaaa	ggaucaccag	cauuuuucca	aaguagcaug	2400
acaaaaauuc	uagagccuuu	uaauuuccaa	auuccagaca	uagulaucua	ucauuacau	2460
gaugauuuu	auguaggau	ugacuuagaa	auagggcagc	auagaacaaa	aaauagaggag	2520
cugagacaac	aucugugag	guggggacui	accacaccag	acaaaaaaca	ucagaaagaa	2580
ccuccauuoc	uuuggaugg	uuaujaacuc	cauccuagaa	aauggacagu	acagccuua	2640
gugcugccag	aaaaagacag	cuggacuguc	aaugacauac	agaaguuagu	ggggaaaauu	2700
aauiugggcaa	gucagauua	cccagggauu	aaaguaaggc	aauiaguuua	auccuuuaga	2760
ggaaoccaaag	cacuaacaga	aguuuuacca	cuacacagaa	aagccagagcu	agaacuggca	2820
gaaaaacagag	agauucuaaa	agaaccagua	cauggagugu	auuaugacc	aucaaaagac	2880
uaauagccag	aauiacagaa	gcaggggcaa	ggccaaugga	cauaucuaau	uaucacagag	2940
ccauuuuaaaa	aucugaaaa	aggaaaaauu	gcaagaauga	ggggugccca	cacuaauugau	3000
glaaaacaaui	uaacagagyc	aguycaaaaa	auaaccacag	aaagcauagu	aaauuggggg	3060
aagacucua	aauiuaaacu	accacuaaca	aaggaaacau	gggaaacau	guggacagag	3120
uuuuggccag	ccaccuggau	uccugagugg	gaguuuuguu	uaacccuucc	uuuagugaaa	3180
uuuagguuac	aguuagagaa	agaaaccuaa	gaggaggcag	aaaccuucua	uguagauugg	3240
gcagcuuaca	gggagacuaa	auuaggaaaa	gcaggauuag	uuacuaacaa	aggaagacaa	3300
aagguuguc	ccuuacuaaa	cacaaacaaui	cagaaaaucg	aguuuacaa	aauiuaucua	3360
gcuiugcagg	auucaggaui	agaaguaaaa	auaguaacag	acucacaaui	ugcauuagga	3420
aucauucaag	cacuaaccaga	uaaaagugaa	ucagaguuag	ucauucuaau	aaauagagcag	3480
uaauuaaaaa	aggaauaagg	ciauuggca	ugguacccag	cacacaaagg	aauiaggagga	3540
aaugaaacag	uaguuuaauu	agucagugcu	ggaaucagga	aaauacuaui	uuuagauugg	3600
uuaguuuaag	ccaaagajja	acauagaaaa	uaucacagaa	auuggagagc	aaugycuagj	3660
gajuuuaac	ugccacuuju	aguiugcaaa	gaaauaguiag	ccagcuugga	uaaaugucag	3720
uuaaaaaggag	aagccaugca	uggacaagua	gacuguaugc	caggaauuag	gcaacuagaj	3780
uguaacacui	uagaaaggaaa	aguuuucug	glagcagui	auguagccag	uggauuaui	3840
gaagccagaag	uuuuuuccagc	agaaacagggg	caggaaacag	cauuuuuuc	uuuaaaauua	3900
gcaggaagaj	ggccaguaaa	aaacuuacau	acagacaaug	gcagcaauuu	ccaccagugcu	3960
acgguuuagg	ccgcocugug	gugggggggga	aucaagcagj	aauiuggaaui	ucccuacaaui	4020
ccccaaaguc	aaggaguuaj	agaaucuaug	aaauaagaaui	uaaagaaaaui	uauiaggacag	4080
guuagagau	agguagaaac	uuuaagaca	gcaguuacaa	ggccaguuui	cauccacaaui	4140
uuuaaaagaj	aagggggggaui	uggggggguac	agugccaggj	aaagaauiag	agacauaaui	4200
gaaacagaca	uaacaaacua	agauuuacaa	aaacaauiua	caaaaauua	aauiuuucgg	4260
gjuuuuaca	gggacagcag	aaaucacau	uggaaaaggac	cagcaaaagcu	ccucuggaaa	4320
ggugaagggg	caguuaguu	acaagaiaau	agugacuaaa	aaguagugcc	aagaagaaaa	4380
gcaaaagaca	uaagggauia	uggaaaaacag	auggcaggj	augauugjui	ggcaaguaga	4440
caggauagag	auuagaaui	ggaaaguuu	aguaaaacac	cauauguaug	uuucagggga	4500
agccaggggga	ugguuuaia	gacuuacua	ugaaagccoc	cauccaagaa	uaagruccaga	4560
aguuacacui	ccacagggg	augcuagau	gguaaiaaca	acauuuggg	gicugcauac	4620
aggagaaaga	gacuggcaui	uggguacagg	agucocuaia	gaauggagga	aaauagaua	4680
uagacacaa	gtagacccug	aacagccaga	ccacuaauu	caucuguaui	acuugacug	4740
uuuuacagac	ucugcuuaui	gaauggccui	auuaggaac	aaaguiagcc	cuggguguga	4800
auuuccaagca	ggacauuua	aggtaggauc	ucuaacaaac	ugggcacag	cagcauuuuu	4860
aaacacaaaa	aaauuaaagc	cccccuguc	agjgucag	aaacugacag	aggaiaagag	4920
gaacaaagcc	cagaagaaaca	aggccacag	acaaugaaug	acaaugaaug	gacacagag	4980
cuuuuagagg	agcuuaagaa	ugaagcuuu	agacauuuc	cuaggauuug	gucccauggc	5040
uuagggcaar	auauuuauga	aacuuuuggg	gauacuuggg	caggagugga	agccauaaui	5100

agaauucugc	aacaacugcu	guuuauccau	uuucagaaau	gggugucgac	auagcagaau	5160
aggcgulacu	cgacagagga	gagcaagaaa	uggagccagu	agaucclaga	cuagagcccu	5220
ggaaagcauc	aggaagucag	ccuaaaacug	cuuguaccua	uugcuauugu	aaaaagugru	5280
gcuuricauig	ccaagurugu	uucuaaaca	aagccuuagg	caucuccuau	ggcaggaaga	5340
agcgagagaca	gcjacgaaga	ccuccu2aag	gcagucagac	ucaucaagu	uccuauuca	5400
agcaguaagu	aguacaugua	uugcaaccua	uacaaauagc	aauguagca	uuaguaguag	5460
caauaauaa	agcaauagui	gugiggucca	uaguaaucau	agaauauagg	aaaaauuuua	5520
gacaaagaaa	aaugacacgg	uuauuugua	gacuaauaga	aagagccagaa	gacaguggca	5580
augagaguga	aggagaaaua	ucagcacuug	uggagauggg	gguggagaug	gggcaccaug	5640
cuccuuggga	uguugaugau	cuguaugucu	acagaaaaau	ugugggucc	agucuaauu	5700
gggguaaccug	uguggaagga	agcaaccacc	acucuaauuu	gugcaucaga	ugcuaaagca	5760
uugauuacag	agguaaiaaa	uguuuggguc	acacauugcu	gugiaaccac	agaccccaac	5820
ccacaaagaa	uauuuuuggu	aaauugjaca	gaaaauuua	acauguggaa	aaauagacau	5880
guajaacaga	ugcaugagga	uaauaiaag	uaiauggauu	aaagccuaaa	gccaugugua	5940
aaaiaaaccc	caucugugui	uagiuuaaag	ugcaugauu	ugaagaauja	uacuaauacc	6000
aauguaugua	gggggagaa	gaiaauuggag	aaaggagaja	uaaaaaacig	cucuaucuu	6060
aucagcacaa	gcuaaagagg	aaaggujccag	aaagaauuig	cauuiuuua	uaaaacuuagu	6120
aiauaaccua	agaiaauiga	iaaiaaccag	iaiaacguuga	caauguuaa	caccucaguc	6180
auacacacag	ccuguccaaa	gguaucuuuu	gagcccauuu	ccauacauua	uugugccccc	6240
gcugguuug	cgauucuaaa	auguaauaa	aagacguuca	auggaacagg	accaguuaca	6300
aaugucagca	caguacaauu	uacacauugga	auuaggccag	uaguaucaac	ucaacugcug	6360
uaaaugggca	guuuygcaga	agaagagguu	guauuagau	cugcccauuu	cacagacaa	6420
gcuaaaacca	uaauaguaca	gcugaaccua	ucuguagaaa	uaauuugua	aagacccca	6480
aacaauacaa	gaaaaaguu	ccguauccag	agaggaccag	ggagagccau	uguaiaauua	6540
ggaaaaauag	gaaaaagag	acaagccacu	iguaacauua	guagagcaaa	auggaauaac	6600
acuuuaaaac	agauagauag	caaauiaga	gaacaauuug	gaaauaauaa	aacaauaac	6660
uuuagccagu	ccucaggagg	ggaccacagaa	auuguaacgc	acaguuuaa	uugugygagg	6720
gaauuuuucu	acuguaauuc	aacacaaucg	uuuaauagua	cuugguuuaa	uaguaucugg	6780
aguacuaaag	ggiaaaaua	cacugaaggga	agugacacaa	ucacccuccc	augcagaaua	6840
aaacaaauua	uaaacaigug	gcagggaaga	ggaaaagcaa	uguaugcccc	ucccaucagu	6900
ggacaaauua	gauguucaic	aaauauuaca	gggcugcuau	uaacaagaga	uggugguuau	6960
agcaaccauug	agucccgagau	cuucagaccu	ggaggaggag	auaugaggga	caaauuggaga	7020
agugaauuau	auaaauauaa	aguaguaaaa	auugaaccuu	uaggaguagc	accaccaag	7080
gcaaaagaga	gaguggugca	gagagaaaaa	agagccagug	gaauaggagc	uuuguuccuu	7140
ggguucuggg	gagcagcagg	aagcacuaug	ggcgccagcu	caaugacgcu	gacyguaacag	7200
gocagacaa	uauguguggg	iaiaugugcag	cagcagaaca	auuugcugag	ggcuauugag	7260
gogcaacagc	aucuguguca	acucacaguc	uggggcauca	agcagcucca	ggcaagaauu	7320
cuggcugugg	aaagaaacuu	aaaggaucaa	cagcuccuug	ggauuugggg	uigcucugga	7380
aaacucuuu	gcaccacugc	ugugcccuug	aaugcuaugu	ggaguaauaa	aicicuggaa	7440
cagauuugga	aiaacaigac	cuggaugggag	igggaacagag	aaaiaaaca	uaacacaagc	7500
uaauuacacu	ccuuaaigga	agaaicggcaa	aaccagcaag	aaaagaaua	acaagaauua	7560
uggaaauuag	uaaaauuggc	aagauugugg	auuugguuua	acaiaacaaa	uigycugugg	7620
uaaiaaaaa	uaaucaiaaa	gauguaigga	ggcuugguag	guuaagaau	aguuuuugcu	7680
guacuuucug	uagugaauiag	aguuaaggcag	ggauauccac	cauaaucguu	ucagaccacc	7740
uucccaaucc	cgaugggacc	cgacaggccc	gaaggaauiag	aagaagaagg	uggagagaga	7800
gacagagaca	gaucacauccg	auuagugaac	ggauccuuag	cacuuauucg	ggacgaucug	7860
ggagccuigi	gcucucucag	uaaccaaccg	ugagagacuu	uacucugau	uguaacggag	7920
auuguggaac	uucugggagc	cagggggugg	gaagcccuca	aaauuuggig	gaaucuccua	7980
caguauggga	gucaggagcu	gcugiaagcu	gcugiaagcu	ugcucaaugc	cacagcuuaa	8040
gcagiaugug	aggggacaga	iaaggguuaa	gaaguiaguc	aaggagcuua	uagagcuauu	8100
ggacacauu	cuugaaigai	agacagggc	uiggaaggga	uuugcuuaa	agaugggugj	8160
caagugguca	aaaaguiagig	iggugggaug	gcuugcugua	agggaaagaa	ugagacggagc	8220
igagccagca	gcaiaugggg	igggagccagc	aucicggagac	cuagaaaaac	auggagcauu	8280
cacaagugag	aacacagcag	ciaacaaigc	ugauugggcc	uggcuagaag	cacaagagga	8340
ggaggaggug	gguiuuccag	ucacaccucc	gguaaccuuu	agaccaauga	cuuacaaggc	8400
agcuguaag	cuuagccacu	uuuaaaaaa	aaagggggga	cugggaagggc	uaauuicacuc	8460
ccaaagaaag	caagguuucc	uugauucugug	gauciaaccac	acacaaggcu	acuucccuga	8520
uagcagaag	uacataccag	ggccaggggau	cagaiaucca	cugaccuuug	gauggugcuu	8580
caagcuagaa	ccaguiagag	cagagaagui	agaagaaggcc	aaacaaggag	agaacaccag	8640
cuuguaacac	cuugigagcu	iggauggaa	ggauagcccg	gagagagaag	uguuagagug	8700
jagguuagac	agccgcuuag	cauuaacua	cauggccccga	gagcugcauc	cggaguacuu	8760
caagaacugc	ugacauugag	cuigcaacaa	gggacuuucc	gcuiggggacu	uuccagggag	8820
ggugggccug	gggggggacug	gggaguggcg	agccuccaga	uccugcauuu	aagcagccugc	8880
uuuugccug	uacugggucu	cucuggcuag	accagaucug	agccugggag	cuc	8933

<210> 4  
 <211> 8935  
 <212> RNA  
 <213> Artificial Sequence

<220>  
 <223> Sequence of the IAC-Asrc pseudo target

<221> mutation  
 <222> 4135) ..(4155)  
 <223> Mutated positions: 4135, 4140-1, 4145, 4150,  
 4152-3, 4155

<400> 4  
 gagcucucuc 60  
 cgacugggga 120  
 gagagcguga 180  
 aggggggaau 240  
 auucggcag 300  
 gcuaacaaca 360  
 aaccucucua 420  
 gauagaggaa 480  
 acacagcgag 540  
 acaucagggc 600  
 uuucagccca 660  
 uuuaaacacc 720  
 gaccuacaa 780  
 ugcaaccagg 840  
 ucagggaaca 900  
 aagauggaau 960  
 ggacauaaga 1020  
 ucuaagagcc 1080  
 ccaaaaugcg 1140  
 agaagaaaug 1200  
 ggcugaagca 1260  
 uaggaaccaa 1320  
 aaaaugcgag 1380  
 gaaagauugu 1440  
 aaggccaggg 1500  
 cagaccagag 1560  
 uccccucag 1620  
 acucuuugcg 1680  
 uagauaaca 1740  
 ccaaaaaaag 1800  
 auagaaaicu 1860  
 auaauggaa 1920  
 auugagaug 1980  
 ccauagagag 2040  
 gggaaaaaau 2100  
 aaaaaagaca 2160  
 caagacuuuu 2220  
 ucaguaacag 2280  
 aggaaguuaa 2340  
 caguacaaug 2400  
 acaaaaaaau 2460  
 gaudauuuuu 2520  
 cugagacaaa 2580  
 cuuacuuuu 2640  
 gugggggaa 2700  
 aauggggaa 2760  
 ggaaccaaag 2820  
 gaaaaacag 2880  
 uuaauggag 2940  
 ccauuuaaa 3000  
 guuaaacaau 3060  
 aagacucua 3120  
 gagcucucuc 60  
 guacggcuaa 120  
 guuuuaagcg 180  
 aaaaaauuaa 240  
 aauuagaaac 300  
 ucccuucaga 360  
 ugugugcauc 420  
 gagcaaaaac 480  
 caggucagcc 540  
 auuicacua 600  
 gaaguaauac 660  
 augguaaaca 720  
 gagjaagcug 780  
 cagaugagag 840  
 auaggauuga 900  
 auuccuggau 960  
 caaggaccaa 1020  
 gagcaagcuu 1080  
 aacccaga 1140  
 augaca 1200  
 augagccaa 1260  
 agaaagauug 1320  
 gcccuaagga 1380  
 acugagagac 1440  
 aggcuaauuu 1500  
 agagca 1560  
 caccagaaga 1620  
 agauagacaa 1680  
 cuuacacaaa 1740  
 uacaguaaua 1800  
 uggagguuu 1860  
 agcuauaggu 1920  
 gagucaaau 1980  
 uagaaagaa 2040  
 uggagguuu 2100  
 gagaaauua 2160  
 gagaaauua 2220  
 gagaaauua 2280  
 gagaaauua 2340  
 gagaaauua 2400  
 gagaaauua 2460  
 gagaaauua 2520  
 gagaaauua 2580  
 gagaaauua 2640  
 gagaaauua 2700  
 gagaaauua 2760  
 gagaaauua 2820  
 gagaaauua 2880  
 gagaaauua 2940  
 gagaaauua 3000  
 gagaaauua 3060  
 gagaaauua 3120  
 gagcucucuc 60  
 guacggcuaa 120  
 guuuuaagcg 180  
 aaaaaauuaa 240  
 aauuagaaac 300  
 ucccuucaga 360  
 ugugugcauc 420  
 gagcaaaaac 480  
 caggucagcc 540  
 auuicacua 600  
 gaaguaauac 660  
 augguaaaca 720  
 gagjaagcug 780  
 cagaugagag 840  
 auaggauuga 900  
 auuccuggau 960  
 caaggaccaa 1020  
 gagcaagcuu 1080  
 aacccaga 1140  
 augaca 1200  
 augagccaa 1260  
 agaaagauug 1320  
 gcccuaagga 1380  
 acugagagac 1440  
 aggcuaauuu 1500  
 agagca 1560  
 caccagaaga 1620  
 agauagacaa 1680  
 cuuacacaaa 1740  
 uacaguaaua 1800  
 uggagguuu 1860  
 agcuauaggu 1920  
 gagucaaau 1980  
 uagaaagaa 2040  
 uggagguuu 2100  
 gagaaauua 2160  
 gagaaauua 2220  
 gagaaauua 2280  
 gagaaauua 2340  
 gagaaauua 2400  
 gagaaauua 2460  
 gagaaauua 2520  
 gagaaauua 2580  
 gagaaauua 2640  
 gagaaauua 2700  
 gagaaauua 2760  
 gagaaauua 2820  
 gagaaauua 2880  
 gagaaauua 2940  
 gagaaauua 3000  
 gagaaauua 3060  
 gagaaauua 3120

uauuggcaag	ccaccuggau	uccugagugg	gaguuuuguu	auacccucc	uuuagugaaa	3180
uuauugguac	aguuagagaa	agaacccaua	guaggagcag	aaaccuucua	uguagauggg	3240
gcagcuuaca	ggggagacuaa	auuagggaaa	gcaggauaug	uuacuaacaa	aggaagacaa	3300
aagguugucc	cccuuacuaa	cacaacaaa	cagaaaacug	aguuacaagc	aauuuauua	3360
gcuuugcagg	auucaggauu	agaaguuaac	uuaguuaacg	acucacaaua	ugcauuagga	3420
aucuuuacag	cacaaaccaga	uaaaagugaa	ucagaguuag	uccauuacaa	auuagagcag	3480
uuuuuuuuuu	ayg.aaagju	cuauucugga	ggguuaacag	cacacaaagg	auuuggagga	3540
aaauaaacag	uayuuaaa ru	aguucugugcu	ggauucaggja	aaauacuaau	uuuagauugga	3600
auagaauagg	cccuuagauja	acauagagaaa	uuuacacagua	auuggagagc	auuggcuagu	3660
gaauuuuaccc	ggguuucugju	aguuagcaaaa	gaaauuagag	ccajucuguga	uaaaugucag	3720
cuaaaaaggag	aagcuuagca	uggacaagua	gacuguauguc	caggaaauaug	gcaacuagau	3780
uguaacacuu	uagaaaggaaa	aguuauccug	guagcauuuc	auguagccag	uggauuuuuu	3840
gaagcaguuag	uuauuuccagc	agaaacaggju	caggjaaacag	cauuuuuuuu	uuuuuuuuuu	3900
gcaggaaagau	ggcuuuguaaa	auuauuacau	acagjacauug	gcagcauuuu	caccagugcu	3960
acggjuuagj	ccgcuuguuu	gggggggggg	auagagagg	aaauuggaa	ucccuacaa	4020
cccuuagju	aagjuaguuu	agaaucuuu	uuuuuuuuuu	uaaagaaaa	uuuaggacag	4080
gaaagaguu	agjuuagaaa	uuuuuuuuuu	ggcaguuuuu	uggcaguuuu	cuucuaacag	4140
cuuagaguu	agagaggggu	uggggggggg	agggcagggg	aaagaaauag	agacauuuuu	4200
gcacacagaa	uacuuuacua	agaaauacaa	aaacaaauuu	caaaaaauca	aaauuuucgg	4260
gaaauuacaa	gggacacag	aaauuacuu	uggaaaaggag	cagcaaaagcu	ccucuggaaa	4320
ggjuuagggg	caguuuaguu	acaagauuuu	agugacauuu	aagagugucc	agaagaaaaa	4380
gcacaaaguu	uuagggauuu	uggaaaaacag	auggcaaggug	augauugugu	ggcagguaga	4440
caggauaggg	auuagaacau	ggaaaaaguuu	aguuuuuacac	cauuuguaug	uuucaggggaa	4500
agcuaggggg	ugguuuuuuu	gacuuuacuu	uuuuuuuucc	cauuuagaa	uaagucagaga	4560
aguacacauu	ccacuagggg	augcuaguuu	gguaauuacac	acauuuuggg	gucugcauac	4620
aggagaaaga	gacugggcau	uggguuacgg	aguuuuccuu	gaauggagga	aaaagagaua	4680
uagcacacaa	guagacccug	aaacuagcag	ccacuuuuuu	caucuguaau	acuuugacug	4740
uuuuuacag	ucugcuuuuu	gaaaggccuu	auuaggacac	auaguuagcc	cuagguguga	4800
auuuuacag	ggacuuuuuu	agguaggauc	uuuacuuuac	uuggcacuag	cagcauuuuu	4860
aaacacacaa	aaguuuuuag	caccuuuucc	uaguuuuuac	aaacugacag	aggauagauu	4920
gaacaaagcc	cagaagacaa	agggccacag	agggagccac	acaauuagau	gacacuaag	4980
cuuuuuuag	agcuuagaa	ugaagcuguu	agacauuuu	cuaggauuug	gcuuacuggc	5040
uuagggcaac	auuuuuuag	aaauuuuagg	guuacuuuug	caggagugga	agcuuauuuu	5100
agaauuuccg	aaauuuccuu	guuuuuuucc	uuuacuuuu	gggguuuccg	auagcaguuu	5160
agggjuuac	ggacagagga	gagcaagaaa	uggagccuag	agauuucua	cuagagcccu	5220
ggaaagcauc	agguuugcag	ccuuuuuacug	cuuguaacaa	uugcuuauug	aaaaaguguu	5280
gcuuuuuag	cccuuuguuu	uuuuuuuacaa	aagccuuuag	cauucuccuu	ggcaggaaga	5340
aggggagaga	ggagagagaa	ccuucuccag	gcagucagac	ucaucaaagu	ucuuuaucaa	5400
agcaguuag	aguuuacuuu	augcaacuuu	uaacaaauag	aaauuagga	uuuaguuag	5460
cauuuuuau	agcauuuag	gugugggucc	uaguuuuuac	agaaauuagg	aaauuuuuuu	5520
gacaaagaaa	auuagacagg	uuuuuuuag	gacuuuuuag	aaagacagaa	gacaguggca	5580
auagagagga	aggaagaaau	ucagcaccuu	uggagaugg	ggugagagau	gggacaccag	5640
cuucuuugga	aguugaagau	cugagugcu	acagaaauuu	ugugggugac	aguuuuuuuu	5700
gggguuuccg	ggguuagga	agcaacccac	acuuuuuuuu	gugcauacag	ugcuuauuag	5760
uuuuuuuag	agguuagga	ggguuuggcc	acacuuuucc	guguuuccac	agaccccaac	5820
uuuuuuuag	agguuagga	ggguuuggcc	ggaaauuuuu	acuuuuggaa	aaauuagauu	5880
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	aaagccuuuu	ggcaguguga	5940
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6000
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6060
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6120
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6180
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6240
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6300
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6360
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6420
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6480
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6540
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6600
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6660
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6720
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6780
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6840
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6900
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	6960
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	7020
uuuuuuuag	agguuagga	ggguuuggcc	uuuuuuuag	uuuuuuuag	uuuuuuuag	7080

gcaaagagaa	gagugggugca	gagagaaaaa	agagcagugg	gaauaggagc	uuuguuccuu	7140
ggguuccuug	gagcagcagg	aagcacuaug	gggcagcgu	caaugacgcu	gaocguacag	7200
gctagacaa	uauigucugg	uauagugcag	cagcagaaca	auuugcugag	ggcuauugag	7260
gggcaacajc	aucugungca	acucacaguc	uggggcailca	agcagcucca	ggcaagaauuc	7320
cuggcugug	aaagauaccu	aaaggaucaa	cagcuccugg	ggauuugggg	uugcucugga	7380
aaacucauru	gcacccacugc	ugugccrugg	aaugcuaguu	ggaguaauaa	aucucuggaa	7440
cagauuugua	uuacacugac	cuggauggag	ugggacagag	aaauuaacaa	uuacacaagc	7500
uuauuacacu	ccuuuauuga	agaauucgaa	aacccagcaag	aaaagaauga	acaagaauua	7560
uuggaauuag	uuaaaugggc	aaguuuuggg	aauiaggguua	acauaacaaa	uuggcugugg	7620
uuuuuuuuu	uuuuuuuuu	gaaaguggga	ggcuugguag	guuuuagaa	aguuuuugcu	7680
guacuuucug	uagugaauiag	aguuaggcag	ggauauucac	cauuauucgu	ucagacccac	7740
cucccaauuc	cgagggggac	cgacaggccc	gaaggaauiag	aagaagaagg	uggagagaga	7800
gacagagaca	gatucauucg	auuagugaac	ggauccuuiag	cacuuauucg	ggacgaucug	7860
cggagccuig	gcucucucag	uuaccacccc	uugagagacu	uacucucug	uguaacgagg	7920
auuguggaa	uuucugggac	caggggggug	gaagcccuca	aaiauiaggug	gaauccucca	7980
caguuuugua	gucaggagcu	aaagaauiag	gcuguiagcu	ugcucaauuc	cacagcuaua	8040
gcaguiagcu	agggggacaga	uagggguuaia	gaauiaguiac	aaggagcuua	uagagcuauu	8100
ggccacaiac	uuagaagaau	aagacagggc	uuggaaaagg	uuuugcuua	agaugggugg	8160
caaguggguu	aaaauiagug	ugguuggaug	gcucugcugua	agggaaagaa	ugagacgagc	8220
ugagccagcu	gcagauuggg	ugggagcagc	aucucgagac	cuagaaaaac	auggagcaau	8280
cacaaguiag	aacacagcag	cuaacaaugc	ugauuugucc	uggcuagaag	cacaagagga	8340
ggaggaggug	guuuuucag	ucacaccuca	gguaaccuuua	agaccaauga	cuuacaaggc	8400
agcuguiagcu	cuuagccacu	uuuuuuuaga	aaagggggga	cuggaagggc	uuauucacuc	8460
ccaacgaaga	caagauauuc	uugaucugug	gaucuaaccac	acacaaggcu	acuuuccuga	8520
uuagcagaau	uacacaccag	ggccaggga	cagauaucca	cugaccuuug	gauggugcu	8580
caagcuagua	ccaguugagc	cagagaaguu	agaagaaggcc	aacaaaggag	agaacaccag	8640
cunguuacac	ccugugagcc	ugcauggaa	ggaugacccg	gagagagaag	uguuagagug	8700
gagguuugac	agccgccuag	cauuucauca	cauggcccg	gagcugcauc	cggaguacuu	8760
caagaacugc	ugacaucgag	cungcuacaa	gggacuuucc	gcuggggacu	uuccagggag	8820
gcguggccug	ggcgggacug	gggaguggcg	agccucaga	ucugcauau	aagcagcugc	8880
uuuuugccug	uacuggguu	cucugguuag	accagaucug	agccuggggag	cuc	8933

<210> 5

<211> 30

<212> DNA

<213> HIV

<220>

<221> source

<222> (1) ... (30)

<223> Sequence of AE(+)4134 HIV-specific probe.

<400> 5

ccacaatttt aaaagaaaag gggggattgg

30

<210> 6

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequence of (-)3837 A30 capture probe.

<400> 6

ccctgttttt gctggaataa cttctgcttc tatattttaaa aaaaaaaaaa aaaaaaaaaa  
aaaaaaaa

60

67

<210> 7

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequence of the (-)4258 A30 capture probe.

<400> 7  
 tctgtgtgtcc ctgttaataaaa cccgttttaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa

57

<210> 8  
 <211> F2  
 <212> DNA  
 <213> HIV

<210>  
 <211> source  
 <212> (10)... (0)  
 <213> Sequence of the AE(+)4134b probe

<400> 8  
 ccacaaattt aaagaaaaag gg

22

<210> 9  
 <211> F933  
 <212> RNA  
 <213> Artificial Sequence

<210>  
 <213> Sequence of the IAC-Bscr pseudo target

<221> mutation  
 <222> (4140)... (4159)  
 <223> Mutated positions: 4140-42, 4145-47, 4152,  
 4156-57, 4159

<400> 9  
 gagcucucuc gaggcaggac uccggcuugcu gaagcgcgca cggcaagagg cgaggggagg 60  
 cgacugguga guacggccaaa aauuuugacu agcggaggcu agaaggagag agauggggugc 120  
 gagagcguga guauuaaggcg ggggagaaau agaucgaugg gaaaaaaauu gguuaaggcc 180  
 aggggggaag aaaaaaauua aauuaaaaaca uauaguaugg gcaagcaggg agcuagaacg 240  
 auicgcaguu aaucucuggcc uguuagaaac aucagaaggc uguagacaaa uacuggggaca 300  
 gcuaacaacca ucccuucaga caggauacaga agaacuuaa ucauuauua auacaguagc 360  
 aaccucucua uugugugcau aaaggauaga gaaaaaagac accaagggaag cuuuaagacaa 420  
 gauagaggua gagcaaaaaca aaaguaagaa aaaagcacag caagcagcag cugacacagg 480  
 acacagcagu caggucagcc aaaaauaccc uauagugcag acauccagg ggcaaauggu 540  
 acacagcagg auacacccua gaacuuuaaa ugcaugggga aaaguaguag aagagaaggc 600  
 uuucagccca gaaguaauac ccauguuuuc agcauuauca gaaggagcca cccacaaga 660  
 uuuaaacacc augcuuaaca cagugggggg acaucaagca gccaugcaaa uguuaaaaga 720  
 gaccaucuaa gagggaagug cagaauggga uagagucacu ccagugcaug cagggccuau 780  
 ugcaccaggc cagagagag agccaagggg aagugacua gcagggaacua cuaguacccu 840  
 ucaggaaaca auagggaugg ugacaaaiaa uccaccuauc ccaguaggag aaauuuauaa 900  
 aagauggua auccugggga uaaaaaaaau aguaagaaug uauagcccuu ccagcauucu 960  
 ggacataaga caaggaccaa aagaaccuu uagagacua guagaccggg ucuauaaaac 1020  
 auuagagcc gagggaagcu cacaggaggg aaaaaauugg augacagaaa ccuuguuggu 1080  
 ccaaaaugg aaaccagau uuaagacua uuaaaagca uugggaccag cggcuacacu 1140  
 agaagaaaug augacagca gucagggagu aggaggacc gcccauaagg caagaguuuu 1200  
 ggcugaagca augagccaa uacaaaauac agcuaccua augaugcaga gaggcauuu 1260  
 uaggaaccaa agaaagaugg uuaaguguu caauuguggc aaagaagggc acacagccag 1320  
 aaauugcagg gcccuagga aaaagggcug uuggaaaugg ggaaagggaag gacaccaau 1380  
 gaaagaug ucuagagag agcuauuuu uuaggggaag auccggccuu ccuacaaggg 1440  
 aaggccagg aaauucuc agagcagacc agagccaaac gccccaccuu uucucagag 1500  
 cagaccagag ccacagccc caccagaaga gagcuucagg ucuuggguag agacaacaac 1560  
 ucccccucag aaagcaggc cgaugagaaa ggaacugua ccuuuaacuu ccucagauc 1620  
 auuuuuggc aacgaccccu cguacacaaa aagauagggg ggcaacuaaa ggaagcucua 1680  
 uuagaaacag gacagagaa uacaguuua gaagaaauga guuugccagg aagauaggaa 1740  
 ccaaaaaga uagggggaau uggaggguu aucaaaagaa gacagaua uagauacuc 1800  
 auagaaaau ugggacaaa agcuuaggu acaguuuag uaggaaccua accugucaac 1860  
 aaaauggaa gaaucuguu gacucagau ggauagcauu uaaaauuucc cauuaagccu 1920  
 auagagacg uaccagaaa auuaaagcca ggaauugaug gcccaaaagu aaacaaugg 1980  
 ccuugacag aagaaaaaaa aaagcauaa gaaagaaau uacagaaau ggaagaggaa 2040  
 ggcacaaau caaaaauug gcuagagaa ccuacacaa cuccaguuu ugcacaaaag 2100  
 aaaaagaca guacuaauu gacaaaaaa guagauuua gagaaacuaa uagagaacu 2160

caagacuucu	gggaagguucu	auuaggaaua	ccacaucccg	cagggguuaaa	aaagaaaaaa	2280
ucaguuaacag	uacuggaug	gggugaugca	uauuuuucag	uucccuuaga	ugaagacuuc	2280
aggaaguaua	cugcauuuac	cauaccuagu	auaaacaaug	agacaccagg	gauuagauau	2340
cuguaacaug	ugcuuocaca	gggauggaaa	ggaucaccag	cauuauucca	aaguagcaug	2400
aiaaaaucui	uaajagccuu	uaaaaaacaa	aauccagaca	uaguuauua	ucauuacauq	2460
gugagauugu	auguaggau	agacuuaagaa	auagggucagc	auagaacaaa	auuagaggag	2520
cugagaaac	auuugugaj	guggggacu	accacaccag	acaaaaacaa	ucagaaaagaa	2580
cuuocauuoc	uuuggauggg	uaugaaucuc	cauocugaua	aauggacagu	acagccuaua	2640
gugcugccag	aaaaagacag	cuggacuguc	aaugucuaac	agaaguuagu	ggggaaaauug	2700
auuuggggcaa	gucagauua	cccagggauu	aaaglaaggg	aauuanguaa	acuccuuga	2760
gjuacccaaag	caauaauaga	aglaauacca	cuacacajaag	aagcagagcu	agaacuggca	2820
guuaacugag	agaucuaaa	agaaacagua	caugjaugug	auuugaccc	aucaaaagac	2880
uaauuagcag	aaauacagaa	gcagggggcaa	ggccaaugga	cauuuacaa	uuaucaagag	2940
ccuuuaaaa	auucyaaaa	aggaaaaaua	gcaajauuga	ggggugccca	cacuaaugau	3000
guaaaaacaa	uaacagaggg	agugcaaaaa	auaacccacag	aaagcauagu	aaauuggggg	3060
aagacuucua	aauiuaaac	ucccauacaa	aaggnaacau	gggaaacauj	guggacagag	3120
uuugggcaag	ccaccuugaj	uccugagugg	gaguuguuu	auacccuccc	uuuagugaa	3180
uuugggcaac	aguuugaj	ajaacccauu	gajjajjag	aaacccuua	uguagauugg	3240
gcajcuuac	ggajajuaa	uuagggaaua	gcagjaiaug	uuauaaca	agggaagcaa	3300
aauguguc	cccuaacuaa	uaaacaauu	cagaaaaucg	aguuacaagc	aauuuauua	3360
gjuugcag	auucagjau	agaaugaaac	auaglaacag	acucacaaua	ugcauuagga	3420
uicauuaag	cccccucg	uaaaaugaa	ucagajuaag	ucauuacaa	aaugagagcag	3480
uuauuaaaa	aggaaaaggu	cuauucuggc	uggguaccag	cacacaaagg	aauggagggu	3540
aaugaacaaag	uagauaaau	agucaguguc	ggaaucagga	aaauacuaau	uuuagauugg	3600
auajauaaag	cccaagauga	accaagagaa	uaucacagua	auuggagagc	aauggcuagu	3660
gauruuuac	ugccaccugu	aguagcaaaa	gaaauaguag	ccagcuguga	uaauugucag	3720
cuaaaaaggag	aagccaugca	uggacaagua	gacuguguc	caggaaauug	gcaacuagau	3780
uguaacacau	uagaaggaaa	aguuauccug	guagcaguuc	auguagccag	uggauauua	3840
gaaagcagaag	uuauuccagc	agaaacaggg	caggaaacag	cauuuuuuc	uuuaaaaaua	3900
gcaaggagau	ggccaguaa	aaacaauac	acagacaaug	gcagcaauu	caccagugcu	3960
ajgguaag	ccgcccugug	jugggggggg	aucaagcagg	aauiuggaa	ucccuacaa	4020
ccccaaaguc	aaggajuaug	ajaaucuaug	aauaaagaa	uaagaaaaa	uaugggacag	4080
gaaagajuc	agjcgaaac	ucuaagaca	gcaguaacaa	uggcaguaui	cauccagaaa	4140
aaauuuugaa	aggggaagcu	uggggggguac	agugcagggg	aaagaauagu	agacauaaua	4200
gcaacagaca	uaaauuacaa	ajaaauacaa	aaacaaaua	caaaaauua	aaauuuucgg	4260
gjuuauaaca	gggacajcag	aaauccacuu	uggaaaggac	cagcaaaagcu	ccucuggaaa	4320
ggajaaagggg	caguaagua	acaagauaa	agugacauaa	aagugugcc	aagaagaaaa	4380
gcaaaagauca	uuagggauua	uggaaaaacag	auggcaggug	augauugugu	ggcaaguga	4440
caggauagag	auuagaaca	ggaaaaaguu	aguaaaacac	cauauuaug	uuicaggga	4500
agcuagggga	ugguuuuaa	gacauacua	ugaaagcccu	cauccaagaa	uaaguucaga	4560
aguacacauc	ccacuagggg	augcuagauu	gguaauaaca	acauauuggg	gucugcauac	4620
ajggagaaaja	gacuggcaui	ugggucaggg	agucuccaia	gaauggagga	aaaagagaua	4680
uagracacaa	guagacccug	aaajagcaga	ccajuaau	cauuguaui	acruugacug	4740
uuuucagac	ucuguaiaa	jaajggccuu	auaggaac	auaguaagcc	cuagguguga	4800
uaacacagca	ggajaaacaa	agjjaggajc	ucuaacauac	uuggcacuag	cagcauuauu	4860
aaacacaaaa	aagajaaagc	cauccuugcc	uaguguaacg	aaacugacag	aggauagauj	4920
uaacaaagcc	cagaagacaa	agggccacag	agggagccac	acaaugaaug	gacacuagag	4980
cuuuuagag	agcuuaagaa	ugaagcuguu	agacauuuuc	cuaggauuug	gcuuccauggc	5040
uaagggcaac	auuucuauga	aacuaaggg	gauacruugg	caggagugga	agccauaaua	5100
agaaucugc	aaacaacugc	guuaucocau	uuucagaaui	gggugucgac	auagcagaau	5160
agggcuuacu	cgacagagga	gagcaagaaa	uggagccagui	agauccuaga	cuaagagccu	5220
ggaaagcaucc	aggaagucag	ccuaaaaaucg	cuguaaccaa	uggcuauugu	aaaaaguguu	5280
gcuuucacug	ccagjuugj	ucuaaaacaa	aagccuuagj	caucuccua	ggcaggaaga	5340
agcggagaca	gcagcgaaga	ccuccuacag	gcagucagac	ucaucaaguu	ucucuaucaa	5400
agcaguaag	aglaacajua	augcaaccaa	uacaaauagc	aaajagugca	uuaguaguag	5460
caauaaiaa	agcaauaguu	gugjggucua	uaguaaiaa	agaaauuagj	aaaaauuaa	5520
gacaaajaaa	aaajagacagj	uaauugajaa	gacuaaiaa	aagajcagaa	gacaguggca	5580
auagagajua	aggajaaaua	ucagcacuug	uggagauggj	gguggagauj	gggcaccagj	5640
cuccuuggga	ugugajugc	cuglagugc	ugggguac	ggggguac	agcuuaui	5700
ggguacccug	ugggaaajga	agcaacccac	acucuauii	jugcaiaaga	ugcuiaagca	5760
uaugajacag	agguacajaa	ugjuugggoc	acacauccci	guguaacccac	agaccccaac	5820
ccacaagaaag	uaguaruggu	aaaugugaca	gaaaauuua	acauugggaa	aaaugacauj	5880
uaagaaacaa	uccajagagga	uaaaauuagj	uaugggauc	aaagccuaaa	gcacugugua	5940
aaauuaaccc	caucucugug	agacugajui	ugacugajui	ugaagaauga	uacuaauac	6000
aaauagajua	ggggagajaa	gaaauuggag	aaagagajaa	uaaaaaacug	cucuuucaa	6060
aucagacacaa	gcuaaagagj	uaagguccag	aaagaauug	cauuuuuuua	uaacuugau	6120



auaauaccaa	uagauaauga	uacuaccagc	uauacguuga	caaguuguaa	caccucaguc	6180
auuacacagg	ccuguccaaa	gguaucuuuu	gagccaauc	ccauacauua	uugugccccc	6240
gcugguurug	cgauucuaaa	auguaaiaau	aagacguuca	auggaacagg	accauguaca	6300
auugucagca	uaguaaaag	uacacaugga	auuaggccag	uagiaucaac	uccaacugcug	6360
uaaaaggga	gucuggccaga	agaagaggua	guaaruaaru	cugccaauuu	cacagacaa	6420
guaaaacca	uaauaguaa	gcugaaccaa	ucugiaagaa	uaauuiguac	aagacccaa	6480
acaaaiacaa	gaaaaagau	ccguauccag	agaggaccag	ggagagcauu	uguuacaaau	6540
ggaaaaauag	gaaaauagag	acaagcaca	uguaacaru	guaagacaaa	auggaauaac	6600
acuuuaaaac	agauagauag	caaaauaaga	gaaccauuug	gaaaauaaua	aaccauaaue	6660
uuuaagcagu	ccucaggagg	ggacccagaa	auuguaacgc	acaguruuaa	uuguggaggg	6720
gaauuuuricu	acuguaauuc	aacacaaacug	uuuaauagua	cuugguuuaa	uaguacuugg	6780
aguiacuaaag	ggucaaaaua	cacugaaggga	agugacacaa	ucacccuccc	augcagaaua	6840
aaacaaaaua	uaaaacaugug	gcagggaagua	ggaaaaagcaa	uguaugcccc	ucccaucagu	6900
ggacaaaaua	gauguucauc	aaauauaaca	gggcugcuau	uaacaagaga	ugggugguaa	6960
agcaacaaag	agucocgagau	cuucagaccu	ggaggaggag	auaigaaggga	caauuggaga	7020
agugaaauau	auaiauaiaa	aguiaguaaa	auugaaccaa	uagjagjagc	acccaccaag	7080
gaaagaggaa	gaguggggg	gagagaaaaa	agagcagjgg	gaaiaaggagc	uuuguuccu	7140
gggucucugg	gagcagcagg	aagcacciaug	ggcgcajggc	caaigaacgc	gaaggguacag	7200
gcagacaaa	auuagucugg	uauagucag	cagcagaaca	auuigcugag	ggcuauugag	7260
gcgcaacagc	auugcuugca	acucacaguc	uggggcaica	agcagcucca	ggcaagaauc	7320
cuggcugugg	aaagauaccu	aaaggaucaa	cagcuuccug	ggauuuuggg	uugcucugga	7380
aaacacauuu	gcacccacugc	ugugccuuug	auugcuagru	ggaguaauaa	auucucuggaa	7440
cagauuugga	auaacauagc	cuggaugggag	ugggacagag	aaaauaaca	uuacacaagc	7500
uuauuacacu	ccuaauuga	agaauccgaa	aaccagcaag	aaaagaauga	acaagaauua	7560
uuggaaauag	auaaaugggc	aaguuugugg	aauggguua	acauaacaaa	uuggcugugg	7620
uauauaaaau	uarucauaa	gauaguagga	ggcuugguag	guuuuagaa	aguuuuugcu	7680
guacuuucug	uagugaauag	aguuaaggag	ggauauucac	cauuuacguu	ucagagccac	7740
cucccaauuc	cgaggggagc	cgacaggccc	gaaggaaug	aagaagaagg	ugggagagaga	7800
gacagagaca	gauccauicg	auuagugaac	ggauccruag	cacruauucg	ggacgaucug	7860
cgagagccug	gcuccuucag	cuaccacccg	ugagagagcu	uacucugau	uguaacgagg	7920
auugiggaa	ucuggggagc	caggggggug	gaagcccuca	aaiauuuggg	gaaucuccua	7980
caguauugga	gucaggagcu	aaagaauagi	gcuguiagcu	ugcucaaugc	cacagcuaua	8040
gcaguagcug	aggggacaga	uaggguuaia	gaaguagrac	aaggagcuua	uagagcuauu	8100
cgccacaia	cuagaagaa	aagacagggc	uuggaaagga	uuugcuaua	agaugggugg	8160
caagugguca	aaaaguagug	ugguuggaug	gcugcugua	agggaaagaa	ugagacgagc	8220
ugagccagca	gcagaugggg	ugggagcagc	auucogagac	cuagaaaaac	auggagcaau	8280
cacaaguagc	aacacagcag	cuaacaaugc	ugauugugcc	uggcuagaag	cacaagagga	8340
ggaggaggug	gguuuuccag	ucacaccuca	gguaaccuuu	agaccaauga	cuaacaaggc	8400
agcuguagau	cuuagccacu	uuuuuaaaga	aaagggggga	cuggaagggc	uaauucacuc	8460
ccaacgaaga	caagauaucc	uugaucigig	gaucuaaccac	acacaaggcu	acuucccuga	8520
uagcagaac	uacacaccag	ggccaggggau	cagauuucca	cugacuuuug	gaujggugcua	8580
caagcuagua	ccagugagc	cagagaaguu	agaagaagcc	aacaaaggag	agaacaccag	8640
cuguiacac	ccugugagcc	ugcaiggaau	ggauagcccg	gagagagaa	ugiuagagug	8700
jagguuugac	agccgcucag	cauucacaca	cauggcccgga	jagcuagcauc	cgaguuacuu	8760
caagaacugc	ugacaicag	cuijcuacaa	gggacuuuic	gcuggggagcu	uuccagggag	8820
jcguggccug	ggggggagc	gggagjggcg	agccucacaga	uccugcauau	aagcagcugc	8880
uuuuugccug	uacuggguu	cucugguuag	accagaucug	agccugggag	cuc	8933